

## Title (en)

An improved delivery apparatus for a self expanding retractable stent

## Title (de)

Verbesserte Einführvorrichtung für einen selbstexpandierenden zurückziehbaren Stent

## Title (fr)

Dispositif amélioré de mise en place d'une endoprothèse (stent) auto-expansible rétractable

## Publication

**EP 1212989 A2 20020612 (EN)**

## Application

**EP 01309631 A 20011115**

## Priority

US 71408100 A 20001116

## Abstract (en)

In accordance with the present invention there is provided a delivery apparatus for a self-expanding stent. The apparatus includes an outer sheath made from an elongated tubular member having distal and proximal ends, and an inner shaft located coaxially within the outer sheath. The shaft has a distal end and a proximal end. The shaft includes a removable member on an exterior surface thereof adjacent to its proximal end. The removable member being sized such that it prevents the sheath from sliding along the shaft proximal to the member until it is removed therefrom. Preferably, the distal end of the shaft further including at least two grooves disposed thereon. Preferably the apparatus includes a substantially cylindrical self-expanding stent located within the sheath. The self-expanding member having a proximal end, a distal end, a longitudinal axis extending therebetween and an interior. The self-expanding stent further including at least two spaced apart longitudinal legs having distal and proximal ends, the distal ends of the legs attached to the proximal end of the member. The legs extending proximally away from the member and each the leg including a flange adjacent its proximal end, wherein the flanges are set within the grooves of the inner shaft so as to releasably attach the stent to the inner shaft.

## IPC 1-7

**A61F 2/06**

## IPC 8 full level

**A61F 2/06** (2013.01)

## CPC (source: EP US)

**A61F 2/954** (2013.01 - EP US); **A61F 2/07** (2013.01 - EP US); **A61F 2/91** (2013.01 - EP US); **A61F 2002/067** (2013.01 - EP US); **A61F 2002/075** (2013.01 - EP US); **A61F 2002/9505** (2013.01 - EP US)

## Citation (applicant)

- US 5316023 A 19940531 - PALMAZ JULIO C [US], et al
- US 5360443 A 19941101 - BARONE HECTOR D [US], et al
- US 5578071 A 19961126 - PARODI JUAN C [AR]
- US 5591229 A 19970107 - PARODI JUAN C [AR]
- US 4733665 A 19880329 - PALMAZ JULIO C [US]
- US 4739762 A 19880426 - PALMAZ JULIO C [US]
- US 4776337 A 19881011 - PALMAZ JULIO C [US]
- EP 0947179 A2 19991006 - CORDIS CORP [US]

## Cited by

EP1719474A3; EP2250975A1; EP1325715A3; EP1440673A1; US6623518B2; US10058313B2; US7611528B2; US8333797B2; US11504231B2; US6814746B2; US8696729B2; US9597212B2; US9867727B2; US10548750B2

## Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

## DOCDB simple family (publication)

**EP 1212989 A2 20020612**; **EP 1212989 A3 20031217**; **EP 1212989 B1 20080109**; AT E383130 T1 20080115; AU 782465 B2 20050728; AU 8731201 A 20020523; CA 2363371 A1 20020516; CA 2363371 C 20090929; CY 1107365 T1 20121219; DE 60132293 D1 20080221; DE 60132293 T2 20090102; DK 1212989 T3 20080519; ES 2298202 T3 20080516; JP 2002200174 A 20020716; MX PA01011711 A 20041110; PT 1212989 E 20080219; US 6843802 B1 20050118

## DOCDB simple family (application)

**EP 01309631 A 20011115**; AT 01309631 T 20011115; AU 8731201 A 20011102; CA 2363371 A 20011115; CY 081100345 T 20080326; DE 60132293 T 20011115; DK 01309631 T 20011115; ES 01309631 T 20011115; JP 2001350398 A 20011115; MX PA01011711 A 20011115; PT 01309631 T 20011115; US 71408100 A 20001116